

LIFCHSKKK, GVAGALVAFK, VAGALVAFK,
 TLGFGAYMSK, LPGCSFSIF, LSAPLHS 2,2000
 CTCGSSDLY, FWAKHMWNF, SKGWRRLAPITAYAO,
 AAYAAQGYKVLVLNPSVAAT, GRHLIFCHSKKKCDE, VVVVATDALMTGYTG,
 TVDFSLDPTFTIETT, NFISGIQYLAGLSTLPGNPA,
 GEGAVQWMNRLIAFASRGNHV, GSSYGFQYSPGQRVE, ASCLRKLGVPLRVW, and
 LTCGFADLMGY.

49. The composition of claim 48, further comprising two epitopes selected from the group in claim 48.

50. The composition of claim 49, further comprising three epitopes selected from the group in claim 48.

51. The composition of claim 48, wherein the composition further comprises a CTL epitope selected from the group consisting of LTDPSHITA, LADGGCSGGAY, RMILMTHFF, VMGSSYGF, FWAKHMWNFI, LLFNILGGWV, IPFYGKAI, and VGIYLLPNR.

52. The composition of claim 48, wherein the composition further comprises an HTL epitope.

53. The composition of claim 52, wherein the HTL epitope is a pan DR binding molecule.

54. The composition of claim 48, wherein the epitope is on or within a liposome.

55. The composition of claim 48, wherein the peptide is joined to a lipid.

56. The composition of claim 48, wherein the epitope is bound to an HLA heavy chain, β 2-microglobulin, and strepavidin complex, whereby a tetramer is formed.

57. The composition of claim 48, wherein the epitope is bound to an HLA molecule on an antigen presenting cell.

58. The composition of claim 57, wherein the antigen presenting cell is a dendritic cell.

59. The composition of claim 48, the composition further comprising a pharmaceutical excipient.

60. The composition of claim 48, further wherein the epitope is in a unit dose form.

61. A composition comprising a prepared peptide of less than 250 amino acid residues comprising at least two hepatitis C virus (HCV) peptide epitopes selected from the group consisting of:

| | | |
|------------------------|-----------------------|---------------------|
| FLLADARV, | YLVAYQATV, | RLIVFPDLGV, |
| DLMGYIPLV, | WMNRLIAFA, | VLVGGVLAA, |
| HMWNFISGI, | ILAGYGAGV, | YLLPRRGPR, |
| LLFLLADA, | YLVTRHADV, | KTSESRQPR, |
| RLGVRATRK, | QLFTFSPRR, | RMVVGGEHR, |
| LIFCHSKKK, | GVAGALVAFK, | VAGALVAFK, |
| TLGFGAYMSK, | LPGCSFSIF, | LSAFSLHSY, |
| CTCGSSDLY, | FWAKHMWNF, | SKGWRLAPITAYAQ, |
| AAYAAQGYKVLVLPNSVAAT, | GRHLIFCHSKKKCDE, | VVVVATDALMTGYTG, |
| TVDFSLDPTFTIETT, | NFISGIQYLAGLSTLPGNPA, | |
| GEGAVQWMNRLIAFASRGNHV, | GSSYGFQYSPGQRE, | ASCLRKLGVPLRVW, and |
| LTCGFADLMGY. | | |

62. The composition of claim 61, wherein at least two epitopes are linked via a spacer.
63. The composition of claim 61, further comprising a third epitope.
64. The composition of claim 63, wherein the third epitope is selected from the group consisting of LTDPSHITA, LADGGCSGGAY, RMILMTHFF, VMGSSYGF, FWAKHMWNFI, LLFNILGGWV, IPFYGKAI, and VGIYLLPNR.
65. The composition of claim 61, further comprising a third epitope that is an HTL epitope.
66. The composition of claim 65, wherein the HTL epitope is a panDR binding molecule.
67. The composition of claim 61, wherein the peptide is on or within a liposome.
68. The composition of claim 61, wherein the peptide is joined to a lipid.
69. The composition of claim 61, wherein the peptide further comprises at least three of the epitopes in the group of claim 61.
70. The composition of claim 61, wherein the peptide further comprises at least four of the epitopes in the group of claim 61.
71. The composition of claim 61, wherein the peptide further comprises at least five of the epitopes in the group of claim 61.

72. The composition of claim 61, wherein the peptide further comprises at least six of the epitopes in the group of claim 61.

73. The composition of claim 61, the composition further comprising a pharmaceutical excipient.

74. The composition of claim 61, further wherein the epitope is in a unit dose form.

75. A composition comprising at least six prepared HCV epitopes each consisting of an amino acid sequence selected from the group consisting of:

| | | |
|------------------------|-----------------------|---------------------|
| FLLLADARV, | YLVAYQATV, | RLIVFPDLGV, |
| DLMGYIPLV, | WMNRLIAFA, | VLVGGVLAA, |
| HMWNFISGI, | ILAGYGAGV, | YLLPRRGPR, |
| LLFLLLADA, | YLVTRHADV, | KTSESRQPR, |
| RLGVRATRK, | QLFTFSPRR, | RMVVGGEHR, |
| LIFCHSKKK, | GVAGALVAFK, | VAGALVAFK, |
| TLGFGAYMSK, | LPGCSFSIF, | LSAFSLHSY, |
| CTCGSSDLY, | FWAKHMWNF, | SKGWRLAPITAYAQ, |
| AAYAAQGYKVLVLNPSVAAT, | GRHLIFCHSKKKCDE, | VVVVATDALMTGYTG, |
| TVDFSLDPTFTIETT, | NFISGIQYLAGLSTLPGNPA, | |
| GEGAVQWMNRLIAFASRGNHV, | GSSYGFQYSPGQRE, | ASCLRKLGVPLRVW, and |
| LTCGFADLMGY. | | |

76. The composition of claim 75, further comprising at least one epitope selected from the group consisting of LTDP SHITA, LADGGCSGGAY, RMILMTHFF, VMGSSYGF, FWAKHMWNFI, LLFNILGGWV, IPFYGKAI, and VGIYLLPNR.--